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Claims

1. A pelvis remedial seated device comprising:

5 a seat 10 included a seat cushion 11 on which an occupant is to be seated and left/right seat sides 12a, 12b provided uprightly at each side end of the seat cushion 11;

a pair of air bags 20a, 20b nested on an inner side of each side for enabling themselves to be expanded or contracted by air supplied into or discharged from the inside of the air bag; and,

10 air injection means for providing air pressure to the air bags 20a, 20b;

wherein the expanding air pressure in the air bags presses the pelvis portion of an occupant.

15 2. The pelvis remedial seated device as set forth in claim 1, wherein the seat has further a first seat back 17 demountably provided at the rear of the left/right seat sides 12a, 12b.

20 3. The pelvis remedial seated device as set forth in claim 1, wherein the seat has a concaved groove at the center thereof where the hips of an occupant is set.

25 4. The pelvis remedial seated device as set forth in claim 1, wherein a flexible fabric 18 is installed round the edge of each right/left seat side 12a, 12b, and each air bag 20a, 20b is nested between the flexible fabric 18 and the inner side of each right/left seat side 12a, 12b.

5. The pelvis remedial seated device as set forth in claim 1, wherein a plural of rubber pads 40, of which the number depends on an occupant's contour, are further provided at the exterior of each air bag 20a, 20b for increasing the pressure against the femoral region.

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6. The pelvis remedial seated device as set forth in claim 1, wherein a chair 50 on which the seat 10 is placed is further provided, the chair 50 is comprised of a support plate 51 on which the rim of the seat cushion 11 is fixedly nested, a second seat back 52 provided uprightly at the rear portion of the support plate 51 and legs 53 extended down from the support plate 51.

7. The pelvis remedial seated device as set forth in claim 1, wherein the seat cushion 11 and the right/left seat sides 12a, 12b are detached from each other, and a rail 61 is transversely installed at the central bottom of the seat cushion 11 so that the each seat side 12a, 12b is slid along a longitudinal slot of the rail 61, by which a distance between the right/left seat side 12a, 12b can be adjusted according to an occupant's physical size.

8. The pelvis remedial seated device as set forth in claim 7, wherein legs 66 are installed at the central bottom of the rail 61.

9. The pelvis remedial seated device as set forth in claim 1, wherein the pair of air bags 20a, 20b are comprised of front/rear cells 22a, 22b, 23a, 23b having an individual space; the air injection means is comprised of right/left air pumps 31a, 31b each connected to the right/left air bag 20a, 20b for supplying the air into the front/rear cells 22a, 22b, 23a, 23b, right/left direction control valves 32a, 32b for supplying air to all air bags 20a, 20b or a selective one, right/left air pressure sensors 38a, 38b for detecting the pressure of the air fed into the right/left direction control valves 32a, 32b from the right/left air pumps 31a, 31b, right/left front/rear air discharge valves 33a, 33b, 34a, 34b for discharging the air from the front/rear cells 22a, 22b, 23a, 23b, controller 35 for controlling the air pumps 31a, 31b, direction control valves 32a, 32b and air discharge valves 33a, 33b, 34a, 34b, a display panel 36 for displaying a signal generated from the controller 35, and a control panel 37 having a plurality of operating keys for inputting the signal generated by a pushed key into the controller 35.

10. The pelvis remedial seated device as set forth in claim 9, wherein the seat cushion 11 has further a photo detective sensor 39, and during no occupant's seating, the photo detective sensor senses the light and the running of the remedial seated device is stopped by the command of the controller 35.

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11. The pelvis remedial seated device as set forth in claim 9, wherein the seat cushion 11 has further a far-infrared generator "T" controlled by the command of the controller 35 at the contacting portion with an occupant's hip, by which the far-infrared light is applied to a pelvis muscle.

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12. The pelvis remedial seated device as set forth in claim 9, wherein the seat cushion 11 has further an oscillating motor "M" and a low frequency oscillator "F" which are under a control of the controller 35 so as to stimulate an occupant's hip.

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13. The pelvis remedial seated device as set forth in any one of claims 9 to 12, wherein the seat 10 has a hollow formed by plural partitions 14 in a round edge belt 13, and the hollow accommodates the air injection means, the photo detective sensor 39, the far-infrared generator "T", the oscillating motor "M" and the low frequency oscillator "F".

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14. The pelvis remedial seated device as set forth in claim 9, wherein the display panel 36 is comprised of a timer unit 36a for indicating the running duration of the remedial device, a level indicating unit 36b for displaying the level of a chosen function and a function indicating unit for displaying which function an occupant chooses.

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15. The pelvis remedial seated device as set forth in claim 9, wherein the control panel 37 is comprised of plural function key pads 37a for selecting an adaptable function such as massage, beat or fumble with pressing, a pair of level key pads 37b for setting the level of a function chosen, plural mode key pads 37c for

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choosing various mode, a time set key pad 37d for setting duration of the chosen function or the mode and a power key pad 37e for turning on/off power.

16. A method for controlling a pelvis remedial seated device, the method comprising the steps of:

(A) inputting a value of a press level chosen by an occupant through a control panel 37;

(B) supplying the air into right/left air bags 20a, 20b by operation of right/left air pumps 31a, 31b;

(C) supplying the air into left front/rear cells 22a, 22b and right front/rear cells 23a, 23b under the control of right/left direction control valves 32a, 32b;

(D) detecting the air pressure in right/left air bags 20a, 20b by right/left air pressure sensors 38a, 38b; determining whether a detected air pressure is lower than a value inputted by an occupant, returning to step (B) if it is, or stopping a running of the air pumps 31a, 31b for predetermined period if it is not;

(E) discharging the air through opened right/left front/rear air discharge valves 33a, 33b, 34a, 34b until the air pressure of the air bags 20a, 20b is lower than a discharge pressure; and,

(F) stopping the running of the air pumps 31a, 31b for predetermined period when the air pressure of the air bags 20a, 20b is lower than a discharge pressure, comparing between the present time elapsed from step (A) and the predetermined set time, returning to step (B) if the present time has not passed, or going a stop step if it has.

17. The method for controlling a pelvis remedial seated device as set forth in claim 16, wherein if the air pressure detected in the air bags 20a, 20b is larger than the value inputted by an occupant, the operation of the air bags 20a, 20b is stopped approximately 10 seconds.

18. A method for controlling a pelvis remedial seated device, the method comprising the steps of:

(A) inputting a value of a press level chosen and a type of crook remedy by an occupant through a control panel 37;

(B) supplying the air into right/left air bags 20a, 20b by operation of right/left air pumps 31a, 31b;

5 (C) supplying the air into left front/rear cells 22a, 22b and right front/rear cells 23a, 23b under the control of right/left direction control valves 32a, 32b;

(D) detecting the air pressure in right/left air bags 20a, 20b by right/left air pressure sensors 38a, 38b, determining whether a detected air pressure is lower than a value inputted by an occupant, returning to step (B) if it is, or determining whether
10 its next step is a right crook remedy or a left crook remedy if it is not;

(E) discharging the air through a left/rear air discharge valve 34b and a right/front air discharge valve 33a until the air pressure of a left/rear cell 23b and a right/front cell 22a is the appropriated one to support an occupant's pelvis when the left crook remedy;

15 (F) determining whether the air pressure of the left rear cell 23b and the right/front cell 22a is lower than a discharge one, returning to step (E) if it is not, stopping the running of the air pumps 31a, 31b for predetermined period if it is;

(G) comparing between the present time elapsed from step (A) and the predetermined set time, returning to step (B) if the present time has not passed, or
20 going a stop step if it has;

(H) discharging the air through a left/front air discharge valve 33b and a right/rear air discharge valve 34a until the air pressure of a left/front cell 22b and a right/rear cell 23a is the appropriated one to support an occupant's pelvis when the left crook remedy at step (D); and,

25 (I) determining whether the air pressure of the left/front cell 22b and the right/rear cell 23a is lower than a discharge one, returning to step (H) if it is, stopping the running of the air pumps 31a, 31b for predetermined period if it is not, and comparing between the present time elapsed from step (A) and the predetermined set time, returning to step (B) if the present time has not passed, or
30 going a stop step if it has.